



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/783,511

02/23/2004

David Killian

2100.0060001

7601

26111 7590 10/15/2009
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

TAN, ALVIN H

ART UNIT

PAPER NUMBER

2173

MAIL DATE

DELIVERY MODE

10/15/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/783,511	Applicant(s) KILLIAN ET AL.	
	Examiner ALVIN H. TAN	Art Unit 2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,11-13,19,21,22,24-27 and 33-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 11-13, 19, 21, 22, 24-27, and 33-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. This Office action is responsive to the Request for Continued Examination (RCE) filed under 37 CFR §1.53(d) for the instant application on 8/3/09. Applicants have properly set forth the RCE, which has been entered into the application, and an examination on the merits follows herewith.

Claims 1, 5, 11-13, 19, 21, 22, 24-27, and 33-43 have been examined and rejected. This Office action is responsive to the amendment filed on 8/3/09, which has been entered in the above identified application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5, 13, 19, 27, and 33-43 rejected under 35 U.S.C. 103(a) as being unpatentable over Hasha et al (U.S. Patent No. 6,734,879), herein after Hasha, in view of Sharood et al (Pub. No. US 2002/0022991 A1), herein after Sharood, and further in view of Meyerson (U.S. Patent No. 6,941,356 B2).

Claims 1, 5, 33, 37, 38, 41 (Interface)

Claims 13, 19, 34-36, 42 (Method)

Claims 27, 39, 40, 43 (Product)

3-1. Regarding claims 1, 13, and 27, Hasha teaches the claim comprising a first set of control objects configured for selecting a system component within the controlled environment, by disclosing a method and system for generating a user interface for controlling software components through a user control point device [*column 2, lines 25-27*]. A main portion of a display contains menu items implemented as buttons for various components associated with the current space. The components relate to audio/video, lighting, climate control, elevator control, art control, and high resolution monitor control [*column 4, lines 49-55; figure 1*].

Hasha teaches wherein activation of a control object from said first set denotes said selected system component and populates the user interface with control options, by disclosing that when a user selects one of the buttons, the user interface for the corresponding software component is provided by a user interface component for that software component [*column 4, lines 55-58*].

Hasha teaches wherein each control option is associated with a sequence of commands that, when executed, sends instructions to control the operations or functions of said selected system component in accordance with a selected activity, by disclosing that [*figure 2*] illustrates a display after the audio/video button has been selected. The main portion reflects options relating to controlling audio/video [*column 5, lines 5-8*]. As shown, the main portion contains a control center component

Art Unit: 2173

corresponding to an entertainment center, an ambient audio hardware component, or other hardware component for controlling various control center components within the space *[column 5, lines 13-18]*.

Hasha teaches a second set of control objects displayed concurrently with said control options associated with said selected system component, by disclosing various program selector buttons for controlling various programs such as a movie, television channel, or music albums *[column 5, lines 10-13]*.

Hasha teaches wherein each control object within said second set of control objects is configured for viewing on the user interface and represents an affiliate system component associated with the selected activity and capable of providing an input to said selected system component, wherein activation of a control object from said second set populates the user interface with control options for an affiliate system component associated with the activated control object from the second set, wherein each control option for said affiliate system component is associated with a sequence of commands that, when executed, sends instructions to control the operations or functions of said affiliate system component in accordance with the selected activity, by disclosing *[figure 3]*, which shows a display after the music album selector button has been selected. Various controls in the main portion allow the user to select an available album and to direct the music to a hardware component, such as the ambient audio component *[column 5, lines 20-27]*. Each user control point (UCP) device includes a list of spatial services that can be controlled by the user. The UCP object may identify its corresponding space from configuration information and establish a tracking reference

Art Unit: 2173

to the space object for the corresponding space. The identity of the corresponding space can be obtained from any number of places including a registry system whose information can be manually entered or automatically established from user preferences *[column 6, line 19 to column 7, line 4]*.

Hasha does not expressly teach wherein said control options for said affiliate system component are displayed concurrently with said second set of control objects on the user interface. Sharwood teaches a similar system for providing a user interface for controlling distributed devices *[paragraph 13]*. *[Figure 7c]* shows an interface for managing a plurality of system components. As shown, a user selects a first set of control objects such as temperature, appliances, scenes, lighting, audio/video, and intercom. A second set of control objects is displayed within tool bar 752 along with concurrently displayed control options 754 and 755 corresponding to a selected one of the control objects from the tool bar. Displaying the second set of control objects concurrently with the control options allows users to more easily switch between selections. Since Hasha teaches navigating between several screens for controlling various devices, it would have been obvious to one of ordinary skill in the art at the time the invention was made to display the control options for said affiliate system component concurrently with said second set of control objects, as taught by Sharood. This would allow users to more easily switch between selections.

Hasha and Sharwood do not expressly teach a third set of control objects representing one or more affiliate system components, the one or more affiliate system components being capable of providing an input to said selected system component

Art Unit: 2173

and associated with performing the selected activity, and wherein the third set of control objects are configured to be pre-configured by a user to be hidden from display on the user interface. Myerson discloses providing a configured user interface based on the presence of peripheral or peer devices connected to a primary device [*column 2, lines 19-31*]. Different application choices, network choices, and peripheral choices may be shown or hidden [*column 3, lines 54-56*]. A user interface may eliminate redundant controls as appropriate [*column 8, lines 22-37*]. Since user specified device detection and reconfiguration procedures are supported [*column 2, lines 31-34*] and the user may manually make configuration changes [*column 4, lines 52-57*], controls for a peripheral device may be pre-configured by a user to be hidden from display. This provides a user interface that supports the preferences and habits of the user [*column 3, lines 24-29*]. Since Hasha and Sharwood disclose a user interface for controlling devices, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include allowing a user to hide controls for a peripheral system component, as taught by Myerson. This would provide a user interface that supports the preferences and habits of the user

3-2. Regarding claims 5 and 19, Hasha, Sharood, and Myerson teach the claim wherein said first set of control objects represents a plurality of component types within the controlled environment, by disclosing control types audio/video, lighting, climate control, elevator control, art control, and high resolution monitor control [*Hasha, column 4, lines 51-55; figure 1*].

3-3. Regarding claims 33 and 34, Hasha, Sharood, and Myerson teach the claim wherein said second set of control objects represents a plurality of component types within the controlled environment, by disclosing control types movies, TV channels, music albums, radio stations, estate cameras, play lists, and in progress [*Hasha, figure 2*].

3-4. Regarding claims 35-40, Hasha, Sharood, and Myerson teach the claim further comprising configuring affiliated system components for viewing as control objects in said second set of control objects by selecting from all available affiliated system components those affiliated system components that should be displayed or hidden on the user interface, by disclosing that each user control point (UCP) device includes a list of spatial services that can be controlled by the user. The UCP object may identify its corresponding space from configuration information and establish a tracking reference to the space object for the corresponding space. The identity of the corresponding space can be obtained from any number of places including a registry system whose information can be manually entered or automatically established from user preferences [*Hasha, column 6, line 19 to column 7, line 4*]. Thus, the list of displayed space objects and spatial services may be configured.

3-5. Regarding claims 41-43, Hasha, Sharood, and Myerson teach the claim further comprising providing proxy control options for controlling the one or more affiliated

Art Unit: 2173

system components associated with the selected activity but pre-configured to be hidden from display on the user interface, by disclosing that different application choices, network choices, and peripheral choices may be shown or hidden [*Myerson, column 3, lines 54-56*].

4. Claims 1, 5, 11-13, 19, 21, 22, 24-27, and 33-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dresti et al (Pub. No. US 2003/0103088 A1), herein after Dresti, in view of Humpleman et al (U.S. Patent No. 6,198,479 B1), herein after Humpleman, and further in view of Myerson (U.S. Patent No. 6,941,356 B2).

Claims 1, 5, 11, 12, 33, 37, 38, 41 (Interface)

Claims 13, 19, 21, 22, 24-26, 34-36, 42 (Method)

Claims 27, 39, 40, 43 (Product)

4-1. Regarding claims 1, 13, and 27, Dresti teaches the claim comprising a first set of control objects for selecting a system component within the controlled environment, by disclosing an electronic device having a remote control application user interface that functions to display operational mode information to a user [*paragraph 4, lines 1-4*]. A wheel 110 [*figure 11*] contains icons representing devices and/or activities [*paragraph 142, lines 1-3*].

Dresti teaches wherein activation of a control object from said first set denotes said selected system component and populates the user interface with control options, by disclosing that the icons function as soft keys that may be selected to cause the

Art Unit: 2173

performance of a further action, for example, to display a device control page, cause the transmission of commands, etc. *[paragraph 138, lines 5-9]*.

Dresti teaches wherein each control option is associated with a sequence of commands that, when executed, sends instructions to control the operations or functions of said selected system component in accordance with a selected activity, by disclosing that users can select the devices by clicking on the appropriate icon in the wheel, wherein a page of control functions for that device would be displayed *[paragraph 151, lines 10-15; figure 19a]*.

Dresti teaches a second set of control objects wherein each control object within said second set of control objects is configured for viewing on the user interface and represents an affiliate system component associated with the selected activity and capable of providing an input to said selected system component, wherein activation of a control object from said second set populates the user interface with control options for an affiliate system component associated with the activated control object from the second set, wherein each control option for said affiliate system component is associated with a sequence of commands that, when executed, sends instructions to control the operations or functions of said affiliate system component in accordance with the selected activity, by disclosing that the home screen device wheel 110 may contain device and activity icons *[paragraph 142, lines 1-3]*. When editing an activity icon, the user is presented with a set of control objects in which to select the device to be operated. Selecting a device would then populate the interface with a set of control options for that device. A series of keystrokes is then input, which would control the

Art Unit: 2173

selected device when the activity icon is run *[paragraph 212, lines 9-14; paragraph 180, lines 6-24]*. Further, activities represent a desired configuration of one or more devices that is centered around a given pastime. For example, a 'watch movies' activity might be setup to cause the transmission of commands to select the DVD player as the audio/video source, set the surround sound mode on the audio amplifier, switch the TV input to S-Video, etc. *[paragraph 137, lines 14-20]*. Thus, in order to setup an activity involving multiple system components, an affiliate system component may be selected and configured by presenting an interface with a set of control option for the affiliate system component. If an activity has already been established and a user wishes to edit the activity, the user would be able to identify any devices being operated by the activity, including a first component and any affiliate components.

Dresti does not expressly teach that the second set of control objects are displayed concurrently with said control options associated with said selected system component and wherein said control options for said affiliate system component are displayed concurrently with said second set of control objects on the user interface. Humpleman teaches a method and apparatus for controlling a plurality of devices on a home network to perform a service *[column 2, lines 19-22]*. A session manager displays related devices on a network and allows users select a device for control *[column 15, lines 7-12, 34-41; figure 8]*. After selection of a device, the user is presented with control options for controlling the selected device *[figure 10, 706]*. The session manager continues to display the contents of the device link page with only those related devices to the selected device activated *[column 15, lines 49-64; column 16, line 8 to column 17,*

Art Unit: 2173

line 15]. The user may then select a second device from the related devices [*column 17, lines 16-26*] wherein the user is presented with control options for controlling the second device [*figure 11*]. As shown in [*figure 11*], the related devices will still be displayed along with control options for the selected related device. Thus, the interface of Humpleman displays a second set of control objects concurrently with the control options associated with the selected device as well as control options for the affiliate system component. This allows users to more easily see which devices are related to a selected device as well as provide a more user-friendly interface for managing related devices. Since Dresti teaches configuring and controlling multiple related devices [*Dresti, paragraph 137, lines 14-20*], it would have been obvious to one of ordinary skill in the art at the time the invention was made to display a second set of control objects representing affiliate system component capable of providing an input to said selected system component concurrently with said control options associated with said selected system component as well as control options for the affiliate system component, as taught by Humpleman. This would allow users to more easily see which devices are related to a selected device as well as provide a more user-friendly interface for managing related devices.

Dresti and Humpleman do not expressly teach a third set of control objects representing one or more affiliate system components, the one or more affiliate system components being capable of providing an input to said selected system component and associated with performing the selected activity, and wherein the third set of control objects are configured to be pre-configured by a user to be hidden from display on the

Art Unit: 2173

user interface. Myerson discloses providing a configured user interface based on the presence of peripheral or peer devices connected to a primary device *[column 2, lines 19-31]*. Different application choices, network choices, and peripheral choices may be shown or hidden *[column 3, lines 54-56]*. A user interface may eliminate redundant controls as appropriate *[column 8, lines 22-37]*. Since user specified device detection and reconfiguration procedures are supported *[column 2, lines 31-34]* and the user may manually make configuration changes *[column 4, lines 52-57]*, controls for a peripheral device may be pre-configured by a user to be hidden from display. This provides a user interface that supports the preferences and habits of the user *[column 3, lines 24-29]*. Since Dresti and Humpleman disclose a user interface for controlling devices, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include allowing a user to hide controls for a peripheral system component, as taught by Myerson. This would provide a user interface that supports the preferences and habits of the user.

4-2. Regarding claims 5 and 19, Dresti, Humpleman, and Myerson teach the claim wherein said first set of control objects represents a plurality of component types within the controlled environment, by disclosing that each device icon is associated with a type *[Dresti, figure 14c]*.

4-3. Regarding claims 11 and 25, Dresti, Humpleman, and Myerson teach the claim further comprising device definition means for specifying input or output links or

Art Unit: 2173

dependencies among one or more affiliate system components and a primary system component, and thereby establishing a chain of system components including said primary system component and said one or more affiliate system components, wherein said primary system component is associated with a primary control object from said first set, by disclosing that when generating a macro, users can specify a sequence of actions for selected devices. For example, a “Watch DVD Movie” macro could be made with primary system component being the DVD Player. When selected via an activity icon on the home screen device wheel 110, the macro would 1) turn on the DVD Player; 2) turn the AMP to the DVD input; 3) turn on the TV; 4) set TV input to “Video 1”; and 5) play the movie [*Dresti, paragraph 211*].

4-4. Regarding claims 12 and 26, Dresti, Humpleman, and Myerson teach the claim wherein activation of said primary control object populates the user interface with control options for executing commands to send instructions to control the operations or functions of said chain of system components, by disclosing that users can copy, link, or edit the macros [*Dresti, paragraph 213, lines 5-10*]. Editing the macros would display control options to allow the user to select and control devices when the macro is run.

4-5. Regarding claim 21, Dresti, Humpleman, and Myerson teach the claim further comprising selecting one or more control objects from said first set to designate system components, wherein said system components can operate in either an on or off state, by disclosing devices having an on/off state [*Dresti, paragraph 131*].

Dresti, Humpleman, and Myerson teach presenting, on said user interface, a switch object that, when activated, executes a global command for the designated system components and executing said global command to send instructions to alter the on-off state of the designated system components, by disclosing activity icons within wheel 110 that denote user generated macros. User generated macros allow the user to manually program a sequence of actions to be assigned to a single button such that the sequence can be repeated by a press of the single button [*Dresti, paragraph 211*].

4-6. Regarding claim 22, Dresti, Humpleman, and Myerson teach the claim further comprising selecting one or more control objects from said first set to designate a component type, presenting, on said user interface, a switch object that, when activated, executes a global command for one or more system components matching said component type, wherein said system components can operate in either an on or off state, and executing said global command to send instructions to alter the on-off state of said one or more system components matching said component type, by disclosing a power macro for a home theatre system that offers a global on and off function for a home theatre [*Dresti, paragraph 131*].

4-7. Regarding claim 24, Dresti, Humpleman, and Myerson teach the claim further comprising selecting one or more control objects from said first set to designate system components, wherein said system components can operate in either an on or off state, by disclosing devices having an on/off state [*Dresti, paragraph 131*].

Dresti, Humpleman, and Myerson teach presenting, on said user interface concurrently with said first set, a switch object that, when activated, executes a global command for the designated system components, by disclosing activity icons within wheel 110 that denote user generated macros. User generated macros allow the user to manually program a sequence of actions to be assigned to a single button such that the sequence can be repeated by a press of the single button [*Dresti, paragraph 211*].

Dresti, Humpleman, and Myerson teach exempting from said global command at least one of one or more specified system components, one or more system components matching a specified component type, and one or more system components positioned within a specified region within the controlled environment, and executing said global command to send instructions to alter the on-off state of all designated system components except for the exempted one or more system components, by disclosing that users can indicate which devices are to participate in the macro [*Dresti, paragraph 166, lines 8-16*].

4-8. Regarding claims 33 and 34, Dresti, Humpleman, and Myerson teach the claim wherein said second set of control objects represents a plurality of component types within the controlled environment, by disclosing that each device icon is associated with a type [*Dresti, figure 14c*].

4-9. Regarding claims 35-40, Dresti, Humpleman, and Myerson teach the claim further comprising configuring affiliated system components for viewing as control

Art Unit: 2173

objects in said second set of control objects by selecting from all available affiliated system components those affiliated system components that should be displayed or hidden on the user interface, by disclosing that activities represent a desired configuration of one or more devices that is centered around a given pastime. For example, a 'watch movies' activity might be setup to cause the transmission of commands to select the DVD player as the audio/video source, set the surround sound mode on the audio amplifier, switch the TV input to S-Video, etc. [*Dresti, paragraph 137, lines 14-20*]. Thus, in order to setup an activity involving multiple system components, an affiliate system component may be selected and configured by presenting an interface with a set of control option for the affiliate system component. Thus, users may choose which affiliate system components to associate with the activity. The associated affiliate system components would consequently be displayed when a configured activity is selected.

4-10. Regarding claims 41-43, Dresti, Humpleman, and Myerson teach the claim further comprising providing proxy control options for controlling the one or more affiliated system components associated with the selected activity but configured to be hidden from display on the user interface, by disclosing that different application choices, network choices, and peripheral choices may be shown or hidden [*Myerson, column 3, lines 54-56*].

Response to Arguments

Art Unit: 2173

5. The Examiner acknowledges the Applicant's amendments to claims 1, 13, and 27.

Regarding the rejection of independent claims 1, 13, and 27 under 35 U.S.C. 103(a), the Applicant alleges that Meyerson, as described in the previous Office action, does not explicitly teach "one or more affiliate system components... hidden from display on the user interface." Examiner notes that without more, "affiliate system component" may be interpreted broadly as any system component that shares some relationship with other system components. Contrary to Applicant's arguments, Meyerson discloses configuring a user interface to show or hide different application choices, network choices, and peripheral choices based on the network environment a system is currently connected to and/or upon which peripheral devices are currently available [*column 3, lines 49-56*]. Thus, components may be related by network. Meyerson discloses performing configuration changes for only a subset of components connected on a network [*column 3, line 57 to column 4, line 9*]. Thus, some components on the network would be hidden. Meyerson also discloses that user preferences are also taken into account when modifying the user interface [*column 4, lines 10-18*]. Users may manually make configuration changes when in particular environments and such changes are automatically made in the future when those environments are detected again [*column 4, lines 52-57*]. For example, a user interface may be adapted to eliminate redundant user interface controls to display only one set of audio controls and channel controls [*column 8, lines 22-30*]. The elimination of redundant controls would be done by a combination of assumptions built into the remote control as well as allowing

Art Unit: 2173

manual predefinition [column 8, lines 31-37]. Thus, the user may manually preconfigure an affiliate system component from being displayed on the user interface.

Applicant states that dependent claims 5, 11, 12, 19, 21, 22, 24-26, and 33-43 recite all the limitations of the independent claims, and thus, are allowable in view of the remarks set forth regarding independently amended claims 1, 13, and 27. However, as discussed above, Dresti, Humpleman, and Myerson are considered to teach claims 1, 13, and 27 and Hasha, Sharood, and Myerson are considered to teach claims 1, 13, and 27, and consequently, claims 5, 11, 12, 19, 21, 22, 24-26, and 33-43 are rejected.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALVIN H. TAN whose telephone number is (571)272-8595. The examiner can normally be reached on Mon-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kieu Vu can be reached on 571-272-4057. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2173

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alvin H Tan/
Examiner, Art Unit 2173